



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,160	03/13/2007	Nigel Paul Maynard	65501-003US1	8076

69713 7590 06/16/2009  
OCCHIUTI ROHLICEK & TSAO, LLP  
10 FAWCETT STREET  
CAMBRIDGE, MA 02138

EXAMINER
----------

VAN, QUANG T

ART UNIT	PAPER NUMBER
----------	--------------

3742

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/16/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@ORTPATENT.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,160	<b>Applicant(s)</b> MAYNARD ET AL.	
	<b>Examiner</b> Quang T. Van	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-25 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 24, 25 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al (US 5,245,154) previously cited.

Sato shows the claimed product by process as it only includes a substrate as a wood or lignocellulosic material (see M.P.E.P. 2113).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3742

5. Claims 1-12, 14-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being obvious over Sato et al (US 5,245,154), in view of Zottu (US 3,496,645) both previously cited.

Sato shows a method of conditioning a substrate, the method including the steps of: a) subjecting the substrate to RF energy in a constrained environment for a time sufficient to heat at least part of the moisture contained in the substrate; and b) reducing pressure in the constrained environment in a manner causing the moisture within the substrate to boil or evaporate (see Figures 1-4 and col. 6, line 38 – col. 10, line 68 and Examples 1 and 2 in col. 11-12). Therefore it shows every feature except for the explicit showing that the moisture contained in the substrate is heated to a temperature of or above the boiling point of water at ambient pressure. However, heating the interior of the wood by RF source to a temperature higher than the boiling of the moisture of the wood is well known in the art (see Figures 1-5, the abstract and col. 1, line 72 – col. 3, line 32). It would have been obvious to an ordinary skill in the art at the time of invention to modify Sato to heat the moisture in the wood to a temperature at or above the boiling of water to achieve efficient and better wood treatment result, in view of the teaching of Zottu. In regard to claims 2-3, the exact frequency, pressure and temperature would be an obvious matter of engineering expediency depending on the type of material being heat-treated and can be easily determined through routine experimentation. In regard to claim 23, Sato also shows the step of incorporating a composition in the wood for the purpose of preservation to be well known (see col. 2,

line 22 – col. 3, line 14). Furthermore, in regard to claims 24, 25 and 27-30, the wood product of Sato is substantially the same as claimed.

***Response to Amendment***

6. Applicant's arguments filed 2/17/2009 and 4/14/2009 have been fully considered but they are not persuasive.

7. Applicants argue that the product made by Sato process does not have the feature, and therefore is different from the lignocellulosic substrate of claim 24. This is not found persuasive. With regard to claims 24-25, 27-30, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the term “A lignocellulosic substrate that has been conditioned according to a method of claim 1”, recited in claim 24, is considered a product-by-process claim. Therefore, the claim recites only a lignocellulosic substrate and no patentable weight is given to the recited method of claim 1 (also noted in claims 25 and 27-30).

8. Applicants argue that Sato teaches a step of reducing pressure and adjusting temperature to volatilize a solvent in a resin solution used for treating a wood material. This pressure reducing step, well controlled in view of the temperature adjustment, does not occur in a rapid manner, while in the present application, the step of reducing the pressure in a rapid manner. This is not found persuasive. Nowhere in the claims have

Art Unit: 3742

a limitation such as reducing the pressure in a rapid manner. Therefore, Sato still read on the claimed limitations.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T. Van whose telephone number is 571-272-4789. The examiner can normally be reached on 8:00Am 5:00Pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quang T Van/  
Primary Examiner, Art Unit 3742  
June 9, 2009

Quang T Van  
Primary Examiner  
Art Unit 3742